

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-14 (canceled).

Claim 15 (currently amended): The apparatus of claim 829, further comprising:
a sheave rotateably configured on the drill mast;
a motor coupled with the sheave; and
an impact hammer, the impact hammer is configured to be raised by a flexible cord, wherein the flexible cord is directed by the drill mast and is received onto the sheave, such that the impact hammer is raised thereby.

Claim 16 (original): The apparatus of claim 15, further comprising:

a sample tube, wherein the sample tube resides within the drill bit while the drill bit is turning, such that the hole is bored with the sample tube contained within the drill bit.

Claim 17 (original): The apparatus of claim 16, further comprising:

Appl. No. 10/735,946
Response dated March 16, 2006
Reply to Office Action of 09/16/2005
EQ 332018479 US

a core sample, the core sample can be collected once the drill bit reaches a depth by dropping the impact hammer on a sample tube extension member.

Claim 18 (currently amended): The apparatus of claim 829, further comprising:
a sample tube, wherein the sample tube resides within the drill bit while the drill bit is turning, such that the hole is bored with the sample tube contained within the drill bit.

Claim 19 (currently amended): The apparatus of claim 829, wherein the drill mast is configured to rotate about one axis relative to the ATV.

Claim 20 (currently amended): The apparatus of claim 829, wherein the drill mast is configured to rotate about two axes relative to the ATV.

Claim 21 (currently amended): The apparatus of claim 829, wherein the drill mast is configured to articulate in a ball and socket.

Claim 22 canceled.

Claim 23 (currently amended): The apparatus of claim 227, further comprising:
a means for controlling the drill motor.

Claim 24 (currently amended): The apparatus of claim 227, further comprising:

a means for taking a core sample at a depth below a surface of the ground.

Claim 25 (currently amended): The apparatus of claim 227, wherein drilling can occur further comprising:

~~a means for drilling into the ground while a sample tube is conveyed proximate to a drill bit.~~

Claim 26 (currently amended): The apparatus of claim 227, further comprising:

~~a means for drilling into the ground, wherein a type of drilling is selected from the group consisting of rock coring, mud rotary drilling, solid stem auger drilling and hollow stem auger drilling.~~

Claim 27 (currently amended): An apparatus comprising:

a means for propelling an all terrain vehicle (ATV) on the ground;

a means for orienting a drill motor in space, wherein the drill motor is coupled with the ATV; and

a means for drilling into the ground; and ~~The apparatus of claim 22, further comprising:~~

a means for drilling wherein the drill motor is simultaneously powered by the ATV and decoupled from the ATV.

Claim 28 canceled.

Claim 29 (currently amended): An apparatus comprising:

an all terrain vehicle (ATV);
a power takeoff configured to deliver power from an ATV engine;
a drill mast removably coupled to the ATV;
a drill motor configured to turn a drill bit, the drill motor slidingly disposed
on the drill mast, the drill motor is configured to be powered from the power
takeoff; and
a control configured to operate the drill motor such that a hole can be
drilled by the drill bit; and~~The apparatus of claim 28, further comprising:~~
a drill mast stand, the drill mast stand is configured to receive the drill
mast when the drill mast is removed from the ATV to facilitate drilling while the
drill motor is powered from the power takeoff.

Claim 30 (currently amended): The apparatus of claim 289, further comprising:

a hydraulic pump, the hydraulic pump is configured to be operated by the
power takeoff and the drill motor is a hydraulic motor, the hydraulic motor is
configured to receive hydraulic fluid from the hydraulic pump.

Claim 31 (currently amended): The apparatus of claim 289, wherein a type of
~~drilling is selected from the group consisting of rock coring, mud rotary drilling,~~
~~solid stem auger drilling and hollow stem auger drilling.~~

Appl. No. 10/735,946
Response dated March 16, 2006
Reply to Office Action of 09/16/2005
EQ 332018479 US

Claim 32 (currently amended): The apparatus of claim 289, wherein the control is a manual control.

Claim 33 (currently amended): The apparatus of claim 289, wherein the control utilizes a wireless link to provide control of the drill motor using a remote control device.

Claim 34 (original): The apparatus of claim 33, wherein the remote control device controls a position of the drill motor on the drill mast.

Claim 35 (original): The apparatus of claim 33, wherein the remote control device controls a speed of rotation of the drill bit.

Claim 36 (new): The apparatus of claim 29, wherein a type of drilling is mud rotary drilling.

Claim 37 (new): The apparatus of claim 29, wherein a type of drilling is solid stem auger drilling.

Claim 38 (new): The apparatus of claim 29, wherein a type of drilling is hollow stem auger drilling.

Appl. No. 10/735,946
Response dated March 16, 2006
Reply to Office Action of 09/16/2005
EQ 332018479 US

Claim 39 (new): The apparatus of claim 27, wherein a type of drilling is mud rotary drilling.

Claim 40 (new): The apparatus of claim 27, wherein a type of drilling is solid stem auger drilling.

Claim 41 (new): The apparatus of claim 27, wherein a type of drilling is hollow stem auger drilling.

Claim 42 (new): The apparatus of claim 29, wherein the drill mast is configured to rotate about one axis relative to the drill mast stand.

Claim 43 (new): The apparatus of claim 29, wherein the drill mast is configured to rotate about two axes relative to the drill mast stand.